

Dec. 1875. Mr. Prince, On some Old Drawings of Saturn. 71

Harding's Atlas (1822) and was rated  $7\frac{1}{2}$  mag. by Lalande. If Herschel's estimate of its magnitude was correct, the star must be variable to the extent of at least two magnitudes. It should be watched, as so many of these deep red stars are known variables. Close by *n.f.* is a fainter star of about  $10\frac{1}{2}$  mag. As I can find no previous record of any observations on the variability of this star, I propose to name it V *Capricorni*.

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*On some Old Drawings of Saturn.* By C. L. Prince, Esq.

A few years since I obtained from Holland a copy of the whole of the works of Gassendi, which were published at Lyons in the year 1658, three years after his death. Copies of this publication are very rarely met with in England, and are not contained in the catalogues of the libraries of either the Royal Society or the Royal Astronomical Society. The fourth volume is devoted to Astronomy, and I find that between the year 1633 and 1656 are given twenty-one drawings of the planet *Saturn*. As these engravings are, so far as I am aware, the first representations of the planet ever published, I have sent herewith tracings of eight of them,\* believing that, if engraved in the *Monthly Notices*, they would prove interesting to many Fellows of the Society as depicting the gradual progression in knowledge of *Saturn*'s form as well as the difficulties which must have been encountered by the observer on account of the unsteady mounting and imperfect definition of the earlier telescopes. The following are literal copies of Gassendi's remarks upon each drawing :—

“No. A. June 19, 1633.—Postea circiter decimam cum per varios nubium hiatus Saturnum tubo respicerem, is quasi ovum sericum, seu quo bombyx filo deducto concluditur. Diameter longior (existens ferè secundum longitudinem Zodiaci) vix apparuit minor diametro Venerea, utraque nempe visa est repetita octies aut decies adæquatum proximè diametrum foraminis tubi. Et à parte quidem anteriore ansa, seu appendicula ostensa est confusior; sed à posteriore exhibita est omnino distinctè; totumque hâc propè magnitudine et formâ conspectum est; siquidem interdum corpus Saturni rotundum, neque radiis undique ansas complectentibus visum est; interdum vero cum ipsis ansis ob circum effusos cincinnos confusius.”

“B.—Saturnus telescopio maximo visus est oblongus, et qualis semper aliàs.”

\* It was not thought necessary to engrave these tracings for the *Monthly Notices*.—ED.

"C.—Attendere placuit ad formam Saturni, eaque exhibita fuit, non quasi adjunctis orbi medio duobus aliis orbiculis, sed quasi adnatis duabus ansulis interceptis maculis, quasi foraminibus effictæ. Heinc forma ovallina, et ea sanè longiuscula, adeo ut medius quasi nucleus vix superaret trienteno totius longitudinis. Fuit autem nonnihil clarior, candicantiorque ipsis ansis. Longitudo semper protensa secundum eclipticam. Habes utcumque heic effigiatum. Diameter Martis apparuit minor sensibilibus diametro brevior Saturni."

"D.—Visi sunt adhuc distinctius Saturni satellites quasi duo cuculli hac propemodum specie."

"E.—Cum ad Saturnum telescopio attendissem medius ille circulus albus non est mihi visus planè exquisitus, speciesque fuit prope hujusmodi."

"F.—Saturnus hujusmodi ferè fuit."

"G.—Saturnus sic se propè habuit."

"H.—Vesperis Parisiis Saturnus rotundus apparuit sine satellitibus clarissimo viro Ismaeli Bullialdo, quemadmodum etiam solitarius deprehensus fuit ab ipsomet Amanuensi mensibus Februario ac Junio telescopio majore Dygbeano videlicet, et minore Galileano."

*The Observatory, Crowborough,  
December 7, 1875.*

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*The Results of some Experiments with Huygens' Parabolic Pendulum for obtaining Uniform Rotation.* By R. L. J. Ellery, F.R.S., F.R.A.S., &c.

In the course of some experiments I made about two years since with the view, if possible, of obtaining more uniform rotation for our barrel Chronographs than had hitherto been secured, I was induced to try Huygens' revolving Parabolic Pendulum, which appeared so perfect theoretically that I surmised as the reason it had not been more generally adopted that there must be some great practical difficulty pertaining to the application of the principle.

I was somewhat surprised too, on looking into the literature of the subject, to find so little information; and in the books within my reach in Melbourne no record of any experiments or precise trials of this kind of pendulum for securing uniform rotation. I had, therefore, nothing to guide me in my experiments except the bare principle. The earlier results I obtained were so unpro-